

CLAIMS:

1. An optical disc driving device including an objective lens that collects light onto an optical disc, in which the objective lens is formed to be movable in a tracking direction of the optical disc across a first region and a second region inside the first region and to be movable in a focusing direction, the optical disc driving device being characterized in that:

a limiting member that limits displacements of the objective lens in the focusing direction is provided;

the limiting member includes a first limiting portion that limits displacements of the objective lens present within the first region while allowing a movable range of the objective lens in the focusing direction to overlap a deflection range of the optical disc within the first region, and a second limiting portion that limits displacements of the objective lens present within the second region in establishing a relation such that the movable range of the objective lens in the focusing direction does not overlap the deflection range of the optical disc within the second region; and

a controller that controls the objective lens in such a manner that the objective lens is located within the second region in a non-focusing state of the objective lens.

2. The optical disc driving device according to Claim

1, wherein:

the limiting member is configured to limit displacements of the objective lens in such a manner that the movable range of the objective lens in the second region is smaller than the movable range of the objective lens in the first region.

3. The optical disc driving device according to Claim 2, wherein:

the limiting member tilts with respect to a direction orthogonal to a rotational axis of the optical disc with an increasing distance from the optical disc on an inner side in the tracking direction.

4. The optical disc driving device according to Claim 2, wherein:

the limiting member has the first limiting portion and the second limiting portion that are formed in a shape of a step.

5. The optical disc driving device according to Claim 2, wherein:

the first limiting portion extends from the first region to the second region; and

the second limiting portion is laid beneath the first limiting portion within the second region.

6. The optical disc driving device according to any one of Claims 1 to 5, further including:

a base;

an optical base formed to be movable in the tracking direction with respect to the base and provided with the objective lens; and

a guiding shaft provided to the base to guide the optical base in the tracking direction,

wherein the limiting member is supported on the guiding shaft.

7. The optical disc driving device according to any one of Claims 1 to 5, further including:

a base; and

an optical base formed to be movable in the tracking direction with respect to the base and provided with the objective lens,

wherein the second limiting portion is supported on the base and provided in the second region alone.

8. The optical disc driving device according to Claim 7, wherein:

the first limiting portion is provided to the optical base, and is configured to move integrally with the optical

base between the first region and the second region.

9. The optical disc driving device according to any one of Claims 1 to 5, further including:

a base;

an optical base formed to be movable in the tracking direction with respect to the base and provided with the objective lens; and

a spindle motor fixed to the base and used to rotate the optical disc,

wherein the second limiting portion is fixed to a stator of the spindle motor.

10. The optical disc driving device according to Claim 9, wherein:

the first limiting portion is provided to the optical base, and is configured to move integrally with the optical base between the first region and the second region.

11. The optical disc driving device according to any one of Claims 1 to 5, further including:

a base;

an optical base formed to be movable in the tracking direction with respect to the base and provided with the objective lens; and

a turn table provided to the base and used to rotate the optical disc,

wherein the second limiting portion is fixed to the turn table.

12. The optical disc driving device according to Claim 11, wherein:

the first limiting portion is provided to the optical base, and is configured to move integrally with the optical base between the first region and the second region.